

qPCR 2007 Event Agenda

	Lecture hall 14 (HS 14)	Lecture hall 15 (HS 15)	Foyer & Seminar rooms 1 & 2 (S1, S2)
Sunday 25 th March 2007			13:00 – 20:00 Industrial Exhibition Built up
			15:00 – 18:00 Arrival & Registration
Monday 26 th March 2007	10:00 – 10:30 Welcome & Opening of the qPCR 2007 Symposium <i>Welcome by Michael W. Pfaffl & Rudolf Schilling Vice-President of Technical University of Munich</i>		8:00 – 10:00 Arrival & Registration
	10:30 – 11:30 Keynote lecture by Thomas W. Myers <i>"Pioneer in quantitative PCR"</i> Advances in Quantitative PCR for Research and Diagnostic Applications.		10:00 – 22:00 Industrial Exhibition
	11:30 – 12:15 Poster Session in the Student Cafeteria		
	12:15 – 13:00 Lunch		
	13:00 – 18:10 microRNA / siRNA Session		18:10 – 19:00 Refreshments in the Industrial Exhibition
	19:00 – 22:00 Get together Party in the Foyer / Industrial Exhibition		
Tuesday 27 th March 2007	9:00 – 12:30 Single Cells Session - part 1	9:00 – 12:30 Pre-analytical Steps	9:00 – 19:00 Industrial Exhibition
	12:30 – 13:15 Lunch		
	13:15 – 14:00 Poster Session in the Student Cafeteria		
	14:00 – 16:30 Single Cells Session – part 2	14:00 – 17:20 Biostatistics & Bioinformatics	
	16:50 – 18:40 Immuno-qPCR Session	17:20 – 18:40 RDML discussion forum	
	19:00 – 24:00 Symposium Gala Dinner Location: Lindenkeller, Pasta & More, Freising Mediterranean Buffet, Asian Buffet, Caribbean Buffet Music & Dancing		
Wednesday 28 th March 2007	9:00 – 12:20 Diagnostics Session – part 1	9:00 – 13:00 High Throughput Session	9:00 – 18:00 Industrial Exhibition
	12:20 – 13:30 Lunch		
	13:00 – 14:00 Poster Session in the Student Cafeteria		
	13:30 – 17:50 Diagnostics Session – part 2	14:00 – 17:50 qPCR NOS Session	
	17:50 – 18:00 Closing of the Symposium Heinrich HD. Meyer & Michael W. Pfaffl		

Agenda qPCR 2007 Event

Sunday 25th March 2007

- 13:00 – 18:00 Built-up for Industrial Exhibition
 15:00 – 18:00 Arrival & Registration

Monday 26th March 2007

Welcome & Opening of the Symposium Lecture hall HS 14

- 08:00 – 10:00 Built-up for Industrial Exhibition
 08:00 – 10:00 Arrival & Registration
 09:00 – 10:00 **Welcome Coffee & Tea**
 10:00 **Welcome & Opening of the Symposium.**
 Michael W. Pfaffl
 Scientific coordination of the qPCR 2007 Symposium & TATAA Application Workshop
 10:15 **Welcome at the Center of Food & Life Science in Freising Weihenstephan.**
 Prof. Dr. – Ing. habil. Rudolf Schilling
 Vice-President TUM, Germany
 10:30 **Keynote lecture:**
Advances in Quantitative PCR for Research and Diagnostic Applications.
 Thomas W. Myers
 Program in Core Research, Roche Molecular Systems, Alameda, CA 94501, US
 Email: thomas.myers@roche.com
 11:30 – 12:15 **Poster Session Student Cafeteria**
 12:15 – 13:00 **Lunch in the student cafeteria**

Main Session: microRNA – siRNA Applications Chair: V. Benes / G. Shipley Lecture hall HS 14

- 13:00 **MicroRNA profiling toolbox: points to consider.**
 Vladimir Benes, Mirco Castoldi, Sabine Schmidt, Martina Muckenthaler
 EMBL, EMBL-University of Heidelberg Molecular Medicine Partnership Unit
 Email: benes@embl.de
 13:30 **Functional analysis of microRNA-containing protein complexes in human cells.**
 Meister G.
 Max Planck Institute of Biochemistry, Germany
 Email: meister@biochem.mpg.de
 14:00 **Validation of Hits from an siRNA Library Screen Using Real-Time qPCR.**
 Shipley G.L.
 The University of Texas Health Science Center-Houston, USA
 Email: gregory.l.shipley@uth.tmc.edu

- 14:25 **(micro)RNAome of human germ cell tumors: pathological and clinical implications.**
 Looijenga L.
 Erasmus Medical Center Rotterdam, Netherlands, The
 Email: l.looijenga@erasmusmc.nl
 14:50 **Whole miRNA Profiling from Single Embryonic Stem Cell and early embryos.**
 Lao K.¹, Tang F.², Xu N.¹, Livak K.¹, Straus N.¹, Surani A. M.²
 (1) Applied Biosystems, California, US; (2) University of Cambridge, Wellcome CRC Institute, UK
 Email: laokq@appliedbiosystems.com

15:15 – 15:45 **Coffee break**

- 15:45 **Multi-Discipline Analysis of Gene Silencing: Complimentary use of Multiplex RT-qPCR, 2-D electrophoresis and Western blotting for RNAi based pathway analysis.**
 Teresa Rubio¹, Katrina Academia², Ning Liu², Tim Wehr², Steve Freeby², Joseph Terefe¹, Todd Yeck¹, Aran Paulus², Eli Hefner¹ and Keith Hamby¹,
¹Bio-Rad Laboratories, Gene Expression Division, Hercules, CA and ²Bio-Rad Laboratories, Germany
 Email: eli_hefner@bio-rad.com
 16:30 **Comparison of endogenous control genes for normalisation of relative quantitative real-time PCR data in a study characterising microRNA expression in human breast cancer tissues.**
 Davoren P., Miller N, Lowery A, Mc Neill R, Kerin M.
 National Breast Cancer Research Institute, Department of Surgery, Clinical Science Institute, University College Hospital, Galway, Ireland
 Email: pamela.davoren@gmail.com
 16:55 **Characterization of miRNA expression in hESC lines using NCodeTM SYBR GreenER miRNA qRT-PCR.**
 Uma Lakshmi¹, Mark Landers¹, Sam An¹, Brandon Nelson², Mark Mercola², Ron Hart³, and Christopher Adams¹
¹Invitrogen Corporation, Carlsbad, CA, ²Burnham Institute for Medical Research, La Jolla, CA and ³Rutgers University, Piscataway, NJ
 Email: mark.landern@invitrogen.com
 17:20 **High-throughput RNAi Phenotype Analysis for Cancer Drug Target Identification and Validation by qPCR.**
 Sukru Tuzmen, Cumhuri Ekmekci, Pinar Tuzmen, Felisa Blackmer, Holly Yin, Quick Que, Jeff Kiefer, David Azorsa, and Spyro Mousses
 Translational Genomics Research Institute (TGen), United States of America
 Email: stuzmen@tgen.org
 17:45 **A new method for separation and characterization of Small RNA by On-Chip Electrophoresis.**
 Martin Greiner¹, Marcus Gassmann¹, Marc Valer², Hans Brunnert¹
¹Agilent Technologies, Waldbronn, Germany; ²Agilent Technologies Inc., Santa Clara, USA
 Email: martin_greiner@agilent.com

18:10 – 19:00 **Refreshments**

- 19:00 – 22:00 **Get-together Party in the Foyer / Industrial Exhibition**



Tuesday 27th March 2007**Main Session: Single Cell qPCR – part 1**

Chair: M. Kubista / B. Rocha

Lecture hall HS 14

- 9:00 **Large Scale Cell-to-cell Variations in Gene Expression.**
Raj A and Tyagi S.
Public Health Research Institute, Newark NJ, United States of America
Email: sanjay@phri.org
- 9:35 **Single cell microRNA and mRNA profiling reveals global gene expression changes during mouse ES differentiation.**
Ruoying Tan¹, Leila Bahreinifar¹, Dana Ridzon¹, Karl Guegler¹, William Strauss², Caifu Chen¹
¹Applied Biosystems, 850 Lincoln Centre Dr., Foster City, CA 94404, USA and ²Department of Molecular, Cellular, & Developmental Biology, University of Colorado, Boulder, CO 80309, USA
Email: Ruoying.Tan@appliedbiosystems.com
- 10:00 **Duplex RT-LATE-PCR reveals transcript gradients in sets of single cells recovered from 8-cell mouse embryos.**
Cristina Hartshorn, Odelya Hartung and Lawrence J. Wangh.
Biology Dept., Brandeis University, Waltham, MA, USA
Email: hartcris@brandeis.edu
- 10:25 **Gene expression or SNP profiling from picograms of RNA using Multiplexed Tandem PCR.**
Stanley K.
Corbett Life Science, Australia
Email: keith.stanley@corbettresearch.com
- 10:50 – 11:20 **Coffee break**
- 11:20 **Quantitative RT-qPCR of individual dopaminergic neurons from vital and fixed tissues.**
Birgit Liss
Physiology, Philipps University of Marburg, Germany
Email: liss@staff.uni-marburg.de
- 11:45 **Intracellular expression profiles in the *Xenopus laevis* oocytes revealed by quantitative real-time PCR.**
Radek Sindelka¹, Jiri Jonak¹, Rebecca Hands², Stephen A Bustin², Mikael Kubista^{1,3}
¹IMG AS CR, Czech Republic, ²Institute of Cell and Molecular Science, Royal London Hospital, United Kingdom and ³TATAA Biocenter, Sweden
Email: sindelka@img.cas.cz
- 12:10 **Systematic Analysis of single cells by PCR.**
Mann W.
Advalytix AG, Germany
Email: mann@advalytix.de
- 12:35 – 13:20 **Lunch in the student cafeteria**
- 13:20 – 14:00 **Poster Session Student Cafeteria**

Main Session: Single Cell qPCR – part 2

Chair: B. Liss / S. Tyagi

Lecture hall HS 14

- 14:00 **Detection and quantification of mRNAs in single human embryonic stem cells.**
Ståhlberg A, Bengtsson M, Semb H.
Stem Cell Center, Lund University, Sweden
Email: anders.stalberg@med.lu.se

- 14:25 **Molecular portraiting of normal and tumor human breast stem cells.**
Pece S.¹, Confalonieri S.², Vecchi M.², Matera G.¹, Ronzoni S.¹, Tizzoni L.², Bernard L.², Pelicci P.G.¹, and Di Fiore P.P.²
¹IEO (Istituto Europeo di Oncologia), Milan, Italy ²FIRC Institute for Molecular Oncology (IFOM), Milan, Italy
Email: salvatore.pece@ifom-ieo-campus.it
- 14:50 **Quantification of multiple gene expression in individual cells.**
Antonio Peixoto, Marta Monteiro, Benedita Rocha, Henrique Veiga-Fernandes
INSERM U591, Faculty of Medicine Paris 5 René Descartes, France
Email: rocha@necker.fr
- 15:15 **Quantitative PCR of heterogeneous tissue: Lessons from the islets of Langerhans.**
Martin Bengtsson¹, Anders Ståhlberg¹, Patrik Rorsman²
¹Lund University, Sweden and ²University of Oxford, UK
Email: martin.bengtsson@med.lu.se
- 15:40 **Quantitative real time PCR for single tumor cell based diagnostics.**
Kemming, D. Meyer-Staeckling, S. Alpers, I. Brandt, B. UKE Hamburg, Germany
Email: d.kemming@uke.uni-hamburg.de
- 16:05 **Heterogeneity in complex tissues identified by quantification of nucleic acids in single cells.**
Philip Day^{1,2}, Lin Chen¹, Pierre-Alain Auroux², Stephan Mohr², Nicholas Goddard², Andreas Manz¹ and Peter Fielden².
¹Analytical Sciences, ISAS, Dortmund, Germany and ²University of Manchester, UK
Email: philip.j.day@manchester.ac.uk
- 16:30 – 16:50 **Coffee break**

Session: Immuno - qPCR

Chair: HHD. Meyer / C. Niemeyer

Lecture hall HS 14

- 16:50 **Immuno-qPCR: Novel Opportunities in Clinical Diagnostics and Research.**
Niemeyer C.
Universität Dortmund, Germany, FB Chemie, Biologisch-Chemische Mikrostrukturtechnik, Otto-Hahn Str. 6, D-44227 Dortmund,
Email: christof.niemeyer@uni-dortmund.de
- 17:25 **Use of Immuno-qPCR for quantifying proteins in large-scale TAP-tag collections.**
Lind K. and Norbeck J.
Chalmers University of Technology, Gothenburg, Sweden
Email: kristina.lind@chalmers.se
- 17:50 **Immuno-Real Time-PCR as a sensitive diagnostic tool: case of prion proteins.**
Ruelle Virginie and ElMoualij Benaissa
Center of research on Prion Proteins, University of Liège, 4000, Belgium
Email: v.ruelle@ulg.ac.be
- 18:15 **Feasibility of simultaneous measurements of mRNA expression and corresponding protein level in micro-dissected tissue samples by real-time technology: PSA in normal and tumour tissues as a demonstrative model.**
Pamela Pinzani¹, Kristina Lind², Francesca Malentacchi¹, Francesca Salvianti¹, Mikael Kubista³, Mario Pazzagli¹, Claudio Orlando¹.
¹Department of Clinical Pathology, University of Florence, Italy, ²Department of Chemistry & Bioscience, Chalmers University of Technology, ³TATAA Biocenter AB, Sweden
Email: p.pinzani@dfc.unifi.it

Tuesday 27th March 2007**Session: Pre-analytical-Steps**

Chair: A. Stahlberg / J. Huggett

Lecture hall HS 15

- 9:00 **An optimised protocol for extracting RNA from single bovine oocyte and blastomeres.**
Marc Boelhaue¹, Fabiola F Paula-Lopes², Tuna Güngör¹, Eckhard Wolf¹
¹Institute of Molecular Animal Breeding and Biotechnology, LMU Munich, Germany and ²Laboratório de Biotécnicas da Reprodução, Departamento de Medicina Veterinária da Universidade Federal Rural de Pernambuco, Recife – PE, Brazil
Email: m.boelhaue@gen.vetmed.uni-muenchen.de
- 9:25 **Laser microdissection – Bridging the gap between sample preparation and molecular biological analysis.**
Hagen-Mann K.
Carl Zeiss MicroImaging, Germany
Email: k.hagen-mann@zeiss.de
- 9:50 **Bring in the marines! Removal of contaminating DNA by marine enzymes in RT-PCR.**
Elde M., Lanes O. and Gjellesvik D.R.
Biotec Pharmacon, Norway
Email: morten.elde@biotec.no
- 10:15 **Multiplex preamplification of limited samples and novel analytical controls.**
Zimmermann Bernhard, Wang Jianghua, Wong David
UCLA, Dental Research Institute
Email: bgz@ucla.edu
- 10:40 – 11:10 **Coffee break**
- 11:10 **Successful measurement of gene expression by quantitative PCR and DNA chip analysis with RNA derived of FFPE material.**
Sybille Matthey¹, Vlad Popovici², Janine Antonov¹, Andrea Oberli¹, Anna Baltzer¹, Mauro Delorenzi² and Hans Jörg Altermatt³ and Rolf Jaggi¹
¹Department of Clinical Research, University of Bern, CH-3010 Bern, Switzerland, ²Swiss Institute of Bioinformatics (SIB), CH-1015 Lausanne, Switzerland and ³Pathology Länggasse, CH-3012 Bern, Switzerland
Email: rolf.jaggi@dkf.unibe.ch
- 11:35 **Simple & effective measures to increase consistency from sample to Ct.**
Kavanagh I.
Thermo Fisher Scientific, ABgene, Great Britain (United Kingdom)
Email: ian.kavanagh@thermofisher.com
- 12:00 **Pre-amplification with standardized mixtures of internal standards enables highly multiplexed Quantitative PCR analysis when sample size is limited or restricted by the volume requirements of nanofluidic systems.**
James C. Willey¹, Erin, L. Crawford¹, Charles Knight², Bradley AusterMiller²
¹University of Toledo, Toledo, Ohio, United States of America and ²Gene Express, Inc. Toledo, Ohio, United States of America
Email: james.willey2@utoledo.edu

12:25 – 13:15 **Lunch in the student cafeteria**13:15 – 14:00 **Poster Session
Student Cafeteria****Session: qPCR BioStatistics & Bioinformatics**

Chair: M. Pfaffl / T. Bar

Lecture hall HS 15

- 14:00 **10 years of qPCR Data analysis, Biostatistics and Bioinformatics. Recent advances and new perspectives.**
Michael W. Pfaffl
Lehrstuhl fuer Physiologie; Physiology - TU München, Germany
Email: michael.pfaffl@wzw.tum.de
- 14:35 **Detection of defective PCR samples with module Outlier of Kineret software.**
Bar T., Tichopad A. and Dahan E.
Labonnet, Israel
Email: tzachi.bar@labonnet.com
- 15:00 **Advanced and universally applicable models for relative quantification with flexible inter-run calibration and proper error propagation.**
Hellemans Jan, Vandesompele Jo
Center for Medical Genetics, Ghent University Hospital, Ghent, Belgium
Email: Jan.Hellemans@UGent.be
- 15:25 – 15:55 **Coffee break**
- 15:55 **Real-time PCR Expression Profiling.**
Kubista M.
TATAA Biocenter, Sweden
Email: mikael.kubista@tataa.com
- 16:30 **A novel approach, based on in silico analysis of plant transcriptome and web search, for the rapid identification of candidate reference genes for gene expression studies.**
Valeria Terzi¹, Gian Paolo Ciceri¹, Paolo Provero², Caterina Morcia¹, Primetta Faccioli¹.
¹C.R.A., Istituto Sperimentale per la Cerealicoltura, Via S. Protaso 302, I-29017 Fiorenzuola d'Arda (PC), and ²Dipartimento di Genetica, Biologia e Biochimica, Università di Torino, Via Santena 5bis, Torino, Italy
Email: v.terzi@iol.it
- 16:55 **CAMPeR - A software for the calculation of amplification efficiencies for real-time PCR-experiments.**
Blom J., Rückert, C., Kalinowski, J., Goesmann, A.
Center for Biotechnology, Bielefeld University, Germany
Email: jblom@cebitec.uni-bielefeld.de

Session: RDML discussion forum

Chair: J. Hellemans

Lecture hall HS 15

Please register for this Session!

- 17:20 **RDML: real-time PCR data markup language.**
Vandesompele Jo, Hellemans Jan
Center for Medical Genetics, Ghent University Hospital, Ghent, Belgium
Email: joke.vandesompele@ugent.be

19:00 – 24:00 Symposium Gala Dinner

Location: Lindenkeller Pasta & More, Freising
Mediterranean Buffet, Asian Buffet, Caribbean Buffet
Music and Dancing

**Pasta & more**

Wednesday 28th March 2007**Session: New Diagnostic applications with real-time PCR - part 1**

Chair: S. Bustin / K. Stanley
Lecture hall HS 14

- 9:00 **Analysis of expression signatures associated with microvascular invasion in colorectal cancer.**
Rebecca E Hands¹, Keith Stanley², Sina Dorudi¹, Stephen A Bustin¹
(1) Queen Mary University of London, United Kingdom
(2) AusDiagnostics, Sydney, Australia
Email: s.a.bustin@qmul.ac.uk
- 9:30 **Use of Tomato Mosaic Virus (ToMV) as Internal Positive Control (IPC) in different RT-PCR settings.**
Helga Mairhofer¹, Martin Obermeier¹, Günter Adam², Hans Nitschko¹
(1) Max von Pettenkofer-Institute, Ludwig-Maximilians-University Munich, Department of Virology, Munich, Germany (2) Pflanzenschutzamt Hamburg, Biozentrum Klein Flottbek, University of Hamburg, Hamburg, Germany
Email: nitschko@mvp.uni-muenchen.de
- 9:50 **Evaluation of endogenous control genes for real-time quantitative PCR in breast cancer tissues.**
McNeill R.E., Miller, N. and Kerin, M.J.
Department of Surgery, Clinical Science Institute, National University of Ireland, Galway, Ireland
Email: roisin.mcneill@nuigalway.ie
- 10:10 **Fluorogenic Quantitative PCR for Non-laboratory Applications.**
Lee M.L.¹, Squirrel D.¹, and Wakeley, P.²
¹Enigma Diagnostics Ltd, Building 224, Tetricus Science Park, Dstl Porton Down, Salisbury, Wiltshire SP4 0JQ and ²Veterinary Laboratory Agency, Technology Transfer Unit, Biotechnology, New Haw, Addlestone, Surrey KT15 3NB
Email: martin.lee@enigmadiagnostics.com
- 10:30 – 10:50 **Coffee break**
- 10:50 **Real-time PCR in Diagnostic Microbiology - a review on 9 years of R&D in an academic environment.**
Reischl U.
University Hospital of Regensburg, Regensburg, Germany
Email: udo.reischl@klinik.uni-r.de
- 11:20 **Multiplex quantitative PCR for detection of Ehrlichia canis, Babesia canis and canine ACTB gene.**
Ofer Peleg¹, Gad Baneth², and Shimon Harrus²
¹Zotal LTD, Israel and ²School of Veterinary Medicine, Hebrew University of Jerusalem
Email: oferp@zotal.co.il
- 11:40 **Rapid and sensitive detection of invasive fungal infections by a 2-step pan-fungal real-time PCR assay.**
S. Preuner¹, T. Lion²
Children's Cancer Research Institute, Vienna, Austria
Email: sandra.preuner@ccri.at
- 12:00 **Rapid, On-demand Detection of Drug Resistant Microorganisms by using the GeneXpert.**
Persing DH.
Cepheid, United States of America
Email: david.persing@cepheid.com
- 12:20 – 13:00 **Lunch in the student cafeteria**
- 13:00 – 13:30 **Poster Session Student Cafeteria**

Session: New Diagnostic applications with real-time PCR - part 2

Chair: U. Reischl / H. Nitschko
Lecture hall HS 14

- 13:30 **Applications of high resolution melt curve analysis for genetic diagnostics.**
White H., Watkins G., Hall V. and Cross NCP.
National Genetics Reference Laboratory (Wessex), UK
Email: hew@soton.ac.uk
- 13:50 **qPCR analysis of molecular targets for developing world pathogen diagnosis; a multi-step approach to a multi-step problem.**
Huggett J. F.
Centre for Infectious Diseases & International Health, University College London, United Kingdom
Email: j.huggett@ucl.ac.uk
- 14:10 **Two new probes for Real-time PCR: EasyBeacons™ and HydrolEasy™ probes.**
Christensen U.
PentaBase, Denmark
Email: ubc@pentabase.com
- 14:30 **TripleHyb real time PCR for detection of single nucleotide polymorphisms in the VEGF promoter region.**
Susanne Füssel¹, Susanne Unversucht¹, Andrea Lohse¹, Silke Tomasetti¹, Anne-Katrin Rost², Manfred P. Wirth¹, Axel Meyer¹, Thomas Köhler²
¹Dept. of Urology, Technical University of Dresden, Germany and ²AJ Roboscreen GmbH, Leipzig, Germany
Email: susanne.fuessel@uniklinikum-dresden.de
- 14:50 **Allergen determination in food by multiplex qPCR.**
Köppel R.
Kantonales Labor Zürich, Switzerland
Email: rene.koeppel@klzh.ch
- 15:10 **Quantitative DNA Methylation Analysis.**
Serena Vinci, Francesca Malentacchi, Roberta Cascella, Francesca Salvianti, Mario Pazzagli, Pamela Pinzani, Claudio Orlando.
Clinical Biochemistry Unit, Department of Clinical Physiopathology, University of Florence, Italy
Email: c.orlando@dfc.unifi.it
- 15:30 – 15:50 **Coffee break**
- 15:50 **Validation of StaRT-PCR for reliable and robust analysis of variably degraded formalin-fixed paraffin-embedded or fine needle aspirate biopsy samples.**
James C. Willey¹, Charles Knight², Bradley Austermler², Thomas Blomquist¹, Erin Crawford¹, Elizabeth Peters²
(1) University of Toledo, United States of America (2) Gene Express, Inc. United States of America
Email: james.willey2@utoledo.edu
- 16:10 **Design and validation of a robust diagnostic assay (prv-1 gene) based on real-time RT-PCR.**
Häusler P., Bohle V.
Kooperationsgemeinschaft molekulare Labordiagnostik, Germany
Email: phausler@oncoscreen.com
- 16:30 **Assessment of yeast intron insertion on expression and mRNA level of the human alpha-1 Antitrypsin cDNA in Pichia pastoris.**
Hasannia S.¹, Lotfi A. S.², Mahboodi F.³ and Mohsenifar A.⁴
¹The University of Guilan, Iran (Islamic Republic of), ²The Tarbiat Modares University, ³Pasture Institute of Iran and ⁴Medical Sciences of Semnan University
Email: s_hasannia@guilan.ac.ir

- 16:50 **High Sensitivity QuantiGene 2.0 Assay for Direct Quantification of mRNA Transcripts.**
Son Bui, Nina Nguyen, Yunqing Ma, Quan Nguyen, George Zheng, Jessie Wu, Wen Yang, Botoul Maqsodi, Joan Davies, Jason Li, Gary McMaster, Frank Witney, Yuling Luo
Panomics, Inc., United States of America
Email: yluo@panomics.com
- 17:10 **Tracing the source of faecal pollution in water by qPCR: quantitative microbial source tracking (QMST).**
Georg H. Reischer¹, David C. Kasper¹, Ralf Steinborn², Robert L. Mach¹, Andreas H. Farnleitner¹
¹Institute for Chemical Engineering, Gene Technology Group, Vienna University of Technology, Vienna, Austria and ²Institute of Animal Breeding and Genetics, Department for Animal Breeding and Reproduction, University of Veterinary Medicine, Vienna, Austria
Email: reischer@mail.zserv.tuwien.ac.at
- 17:30 **Preliminary evaluation of the GeneXpert Dx System for CML patients monitoring through the Xpert BCR-ABL Monitor assay: comparison with traditional RT-qPCR methods.**
Silvia Calatroni, Barbara Rocca, Ilaria Giardini, Marina Boni, Irene Dambruoso, Paolo Tarantino, Paolo Bernasconi
Division of Hematology - IRCCS Policlinico S. Matteo Foundation, Pavia, Italy
Email: s.calatroni@smatteo.pv.it

Closing of the Symposium Lecture hall HS 14

- 17:50 **Closing of the Symposium**
Heinrich HD. Meyer & Michael W. Pfaffl

Wednesday 28th March 2007

Session: High throughput quantitative PCR Chair: N. Zoric / L. Warren Lecture hall HS 15

- 9:00 **Massively Parallel, Nanoliter-scale PCR for High Throughput Genomics.**
Brenan C.
BioTrove Inc., United States of America
Email: cbrenan@biotrove.com
- 9:20 **Towards High-Throughput Single-Cell Expression Analysis.**
Warren L.
Stanford University, United States of America
Email: luigiw@stanford.edu
- 9:40 **LightCycler® 480 Real-Time PCR System: Innovative Solutions for High Throughput PCR.**
O. Geulen, G. Tellmann
Roche Diagnostics, Roche Applied Science, Germany
Email: Oliver.Geulen@Roche.com
- 10:00 **It's a long road to prognostic qPCR profiling in the clinic.**
Joëlle Vermeulen, Katleen De Preter, Els De Smet, Geneviève Laureys, Frank Speleman, Jo Vandesompele
Ghent University Hospital, Belgium
Email: joke.vandesompele@ugent.be
- 10:20 **A GPCR brain map using Taqman Low Density Arrays.**
Samaha R.
Applied Biosystems, United States of America
Email: samaharr@appliedbiosystems.com
- 10:40 – 11:00 **Coffee break**

- 11:00 **BioMark™ System: A Breakthrough Real-time qPCR System for HT Expression Profiling, MicroRNA Analysis, and Single-Cell qPCR.**
Unger M.
Fluidigm Corp., United States of America
Email: marc.unger@fluidigm.com
- 11:20 **Speed matters – Fast ways from template to result.**
Thorsten Traeger
QIAGEN GmbH, Hilden, Germany
Email: thorsten.traeger@qiagen.com
- 11:40 **Identification of the vascular lineage-specific transcriptome and development of a novel low-density microvascular differentiation array.**
Jay W. Shin¹, Kentaro Kajiya¹, Weiniu Gan², Peter Li², Rainer Kunstfeld³ and Michael Detmar¹
¹Institute of Pharmaceutical Sciences, ETH Zurich, Zurich, Switzerland, ²Molecular Biology Division, Applied Biosystems, Foster City, CA, USA and ³Department of Dermatology, Medical University Vienna, Vienna, Austria
Email: jay.shin@pharma.ethz.ch
- 12:00 **GeXP- a new approach in high-throughput gene expression analysis.**
Han-Chang Chi¹, Yong Wu¹, Jane Luo¹, Kahuku Oades², Gordon Vansant², Scott K. Boyer¹, Manfred Souquet¹ and Keith Roby¹, ¹Nucleic Acid Testing Business Group, Beckman Coulter, Inc., N Harbor Blvd, Fullerton, CA and ²Analytical Services, Althea Tech Beckman Coulter, Germany
Email: msouquet@beckman.com
- 12:20 **Novel qPCR methods for cellular high throughput compound screenings of SOST expression inhibitors.**
Angela Furrer, Simone Degen, Heidi Jeker, Johann Wirsching and Hansjörg Keller
Bone & Cartilage Unit, Musculoskeletal Disease Area, Novartis Institutes for BioMedical Research, Basel, CH
Email: hansjoerg.keller@novartis.com
- 12:40 **A comprehensive and quantitative way : HiCEP**
Abe M.
National Institute of Radiological Sciences, Japan
Email: abemasum@nirs.go.jp

13:00 – 13:30 **Lunch in the student cafeteria**

13:30 – 14:00 **Poster Session
Student Cafeteria**

Session: qPCR NOS Session *Normalization & Optimization & Standardization* Chair: T. Nolan / P. Pinzani Lecture hall HS 15

- 14:00 **Quantification of mRNA using the real-time RT-PCR.**
Tania Nolan¹, Rebecca E Hands², Stephen A Bustin²
¹Sigma Aldrich, United Kingdom and ²Queen Mary University of London, London, UK
Email: tnolan1@europe.sial.com
- 14:30 **qPCR pitfalls - primer and probe design / fluorophore quencher combinations.**
Beslin C.
Eurogentec, Belgium
Email: cl.beslin@eurogentec.com
- 14:50 **The Intricacies of Multiplexing Revealed through a Pathogen Detection Assay.**
V. Evan Messenger, Ben Sowers
Biosearch Technologies, United States of America
Email: evan@biosearchtech.com

<p>15:10 Accurate quantification of mRNAs and housekeeping gene selection for quantitative real-time RT-PCR normalization in European beech (<i>Fagus sylvatica</i> L.) during abiotic and biotic stress. <u>Olbrich M.</u> GSF, Germany Email: maren.olbrich@gsf.de</p> <p>15:30 EvaGreen: a new fluorescent nucleic acid dye for real-time qPCR. Mao F^{1,2}, Leung WY¹, and Xin X.^{1,2} ¹Biotium, Inc., Hayward, US and ²AlleLogic Biosciences Corporation, Hayward, US Email: shanex@allelogic.com</p> <p>15:50 – 16:20 Coffee break</p> <p>16:20 Quantitative, multiplexed amplification with the Plexor™ qPCR Systems. Katharine Hoffmann, Benjamin Krenke, Cynthia Sprecher, Susan Frackman, Ethan Strauss, and <u>Douglas Storts</u> Promega Corporation, United States of America Email: doug.storts@promega.com</p> <p>16:40 Taqman vs Molecular Beacon: Design and optimisation of an improved probe for real-time PCR detection. <u>R. Powell</u>¹, T. Brown², J. Wicks¹ ¹PrimerDesign Ltd, United Kingdom and ²Southampton University, Organic Chemistry Email: rob@primerdesign.co.uk</p>	<p>17:00 Comparison of different probe chemistries and platforms to improve the sensitivity of real-time PCR. <u>Reynisson E.</u>^{1,2}, Josefsen M.H.³, Krause M.³, Hoorfar J.³ ¹Matis, Iceland, ²University of Iceland and ³Danish Institute for Food and Veterinary Research (DFVF) Email: eyjolfur@matis.is</p> <p>17:20 Sample number and denaturation time are crucial for the accuracy of capillary-based LightCyclers. <u>Thomas von Kanel</u>, Florentin Adolf, Mircea Schneider, Javier Sanz, Sabina Gallati Division of Human Genetics, University of Berne, Switzerland Email: biotom@students.unibe.ch</p> <hr/> <p>Closing of the Symposium Lecture hall HS 14</p> <p>17:50 Closing of the Symposium Heinrich HD. Meyer & Michael W. Pfaffl</p>
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Thursday 29th March 2007 - Friday 30th March 2007

qPCR Application Workshops



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The workshops are aimed at giving participants a deep and objective understanding of real-time quantitative PCR and its applications. The courses are intended for persons considering working with qPCR or scientists currently working with qPCR seeking a deeper understanding.

All three workshops are hosted by the TATAA Biocenter Sweden and TATAA Biocenter Germany (www.tataa.com and <http://TATAA.gene-quantification.info>). The TATAA qPCR workshop laboratories and seminar rooms are close to the central lecture hall.

The qPCR courses cover all aspects in qPCR and are held during 2-days. Each course is approximately 50% hands-on and is limited to 30 participants, resulting in very interactive teaching and everybody given the opportunity to try the instrumentation. After the course participants will be able to plan and perform qPCR experiments themselves, as well as interpret and analyze data. Detailed course material and full catering (lunch, coffee, soft drinks and snacks) are included in the course fee.

Three different 2-day workshops will be held in parallel at 29th - 30th March at the qPCR 2007 Event:

Workshop topics:

- | | |
|--|---------------------|
| • Classical qPCR Application (2-days) | Practical room – P2 |
| • qPCR Biostatistics and Expression Profiling (2-days) | Practical room – PU |
| • Sample Preparation (1-day) & Immuno-qPCR (1-day) | Practical room – P3 |

Classical qPCR Application (2-days):

Practical room – P2

- Basic Principles of PCR and qPCR
- Comparison of different detection technologies
- Applications of qPCR
- Probe and Primer design
- Data Analysis
- Relative Quantification-considerations and limitations
- Experimental Design
- Reverse Transcription
- Extraction methods
- Multiplex considerations

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qPCR Biostatistics & Expression Profiling (2-days):



Practical room - PU

This course explains statistics applicable to qPCR and teaches how to use statistics to interpret real-time PCR gene expression data, and classify samples based on real-time PCR expression profiling. Course is based on seminars and computer-based demonstrations. Please bring your own Laptop to the course!



During the Biostatistics Module you will learn:

- How to calculate mean, standard deviation (of sample and population), coefficient of variation, confidence interval, P-value.
- How to compare a group of samples with a mean (simple t-test), to compare two groups of samples (unpaired t-test), and group of samples before and after treatment (paired t-test)
- How to compare three or more groups (one way ANOVA), and groups of samples measured before, during and after treatment (repeated measures ANOVA)
- How to study the effect of treatment (linear regression)
- How to compare samples that are not from a Gaussian population (Wilcoxon test, Mann-Whitney test)
- How to visualize and interpret real-time PCR expression data of many genes in many samples (principal component analysis)
- How to identify related samples based on real-time PCR expression profiling (Hierarchical clustering)
- How to find response profiles describing samples studied by real-time PCR expression profiling (self-organizing maps)
- How to design real-time PCR expression studies (experimental design).
- Discussion and Q&A.

Sample Preparation (on day 1) & Immuno-qPCR (on day 2):

Practical room – P3

Sample Preparation:

- Introduction and overview of sample preparation.
- Purification from tissue.
- Quality control of purified DNA/RNA.
- Quality control of purified material.
- Advanced methods.
- Troubleshooting.
- Discussion and Q&A.

Immuno-qPCR:

- Immunoassays.
- The Immuno-qPCR assay.
- Immuno-qPCR experiment quantifying PSA.
 - Preparation of dilution series.
 - Pre-incubation of PSA and antibody/DNA-conjugate.
 - Washing of wells.
 - Immobilization of protein and conjugate mix in PCR-plate.
 - Washing of wells.
 - Adding of PCR master mix.
 - qPCR
- Optimization of Immuno-qPCR.
- Selected applications of Immuno-qPCR.
- How to analyse Immuno-qPCR data.
- Troubleshooting.
- Analysis of the performed Immuno-qPCR experiment.
- Discussion & Questions.



Our qPCR Workshop Sponsors:



Thursday 29th March 2007**Roche Applied Science LightCycler® 480 Gene Quantification Workshop**
9.00 – 12.30 a.m. Seminar room – S2*Roche Applied Science*

- Participants: - Basic knowledge of real-time PCR is required.
 - Number of participants: 50
 - Admission to the workshop is free of charge. Snacks and coffee are served during the breaks.
- Content: In this session, we will introduce you to our extraordinary fast, flexible and accurate concept for gene expression analysis - our sophisticated LightCycler® 480 Real-Time PCR System – in combination with our innovative Universal ProbeLibrary qPCR assays. This course contains both theoretical and practical training. Participants will get the opportunity to establish a Universal ProbeLibrary qPCR assay during the session.
- Agenda: - Theoretical part Introduction of the LightCycler® 480 Real-Time PCR System and the Universal ProbeLibrary System.
 - Practical part Design, performance and analysis of Universal ProbeLibrary qPCR assays.
 - Discussion

Roche Applied Science LightCycler® 480 Gene Scanning Workshop
1.30 – 5.00 p.m. Seminar room – S2

- Participants: - Basic knowledge of real-time PCR is required.
 - Number of participants: 50
 - Admission to the workshop is free of charge. Snacks and coffee are served during the breaks.
- Content: In this session, we will introduce you to our brand-new method for high-resolution melting curve analysis (HRM) with the LightCycler® 480 Real-Time PCR System, which will be available soon. With this excellent functionality, the LightCycler® 480 System will provide an innovative method to scan genes for unknown genetic variations. This course contains both theoretical information and practical demonstrations.
- Agenda: - Theoretical part Introduction of the LightCycler® 480 Real-Time PCR System (Gene Scanning Module).
 - Demonstration of a gene scanning analysis
 - Discussion

If you are interested in participating in the LightCycler® 480 Application Workshops (29 March 2007), please respond via the following link:
<http://www.roche-applied-science.com/sis/rtpcr/htc/invitation.jsp>

Thursday 29th March 2007**Bio-Rad Gene Quantification Workshop****Practical room – P4**

Workshop I	Workshop II
9.00 – 12.00 a.m.	1.00 – 4.00 p.m.

- Participation: - 25 participants possible
 - Participation to the workshop is free of charge.
 - Snacks and coffee are served during the breaks.
- Content: The Bio-Rad Gene Quantification Workshop will introduce you to the whole Gene Expression workflow. Besides different options for Real Time PCR instrumentation and qPCR application strategies, the RNA Quality Control steps and the Microarray instrumentation area will be covered as well. You will have a chance to manipulate the different instrument platforms, especially by running both conventional and FAST real time PCR applications.
- Registration: For registration, please send an e-mail to: qPCR_Workshop@bio-rad.com

Thursday 29th March 2007**Promega Workshop - Plexor, the new Technology for MultiPlex qPCR and Genotyping****Seminar room – S1**

Workshop I	Workshop II
9.30 – 12.00 a.m.	1.30 – 5.00 p.m.

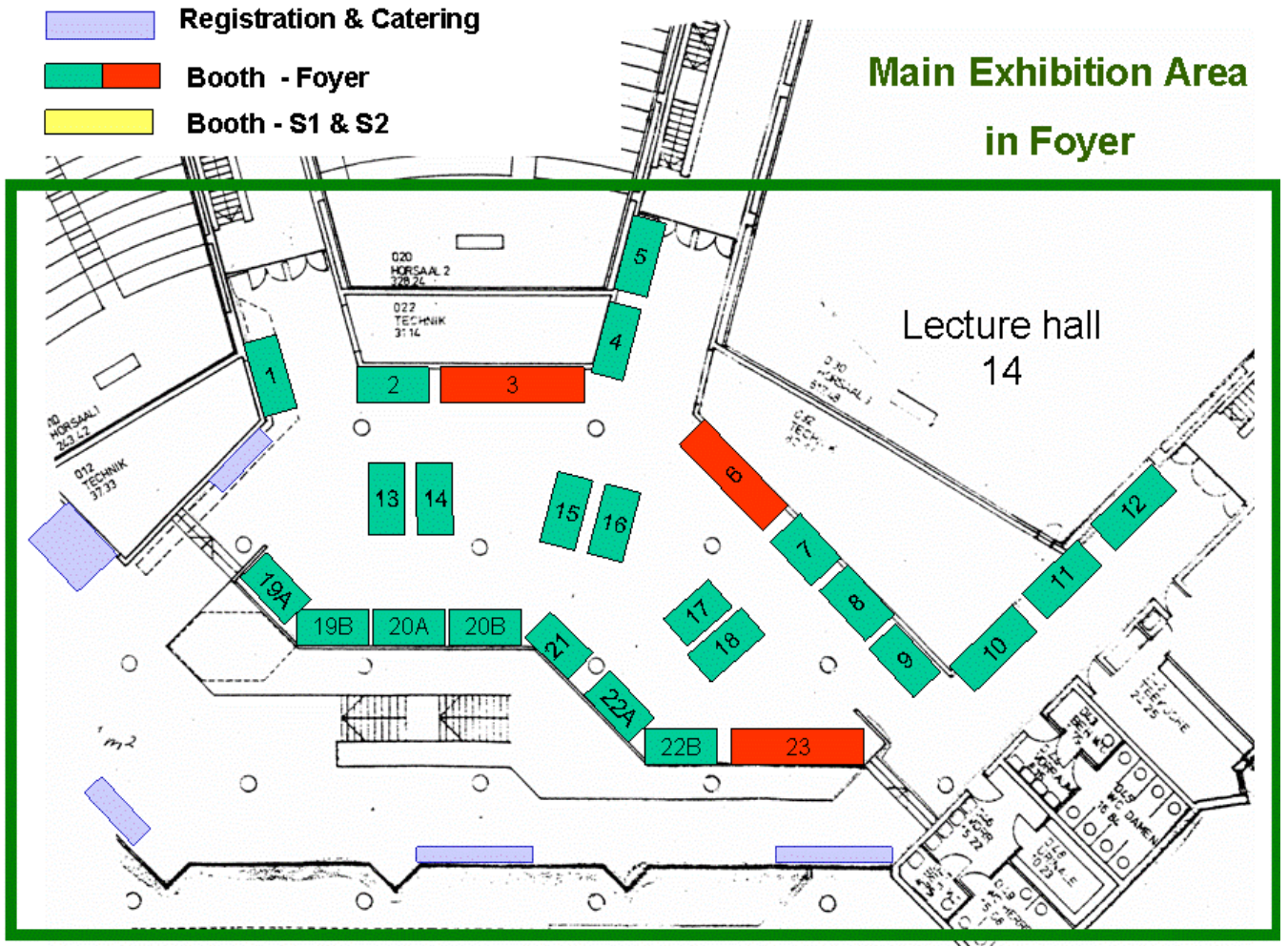
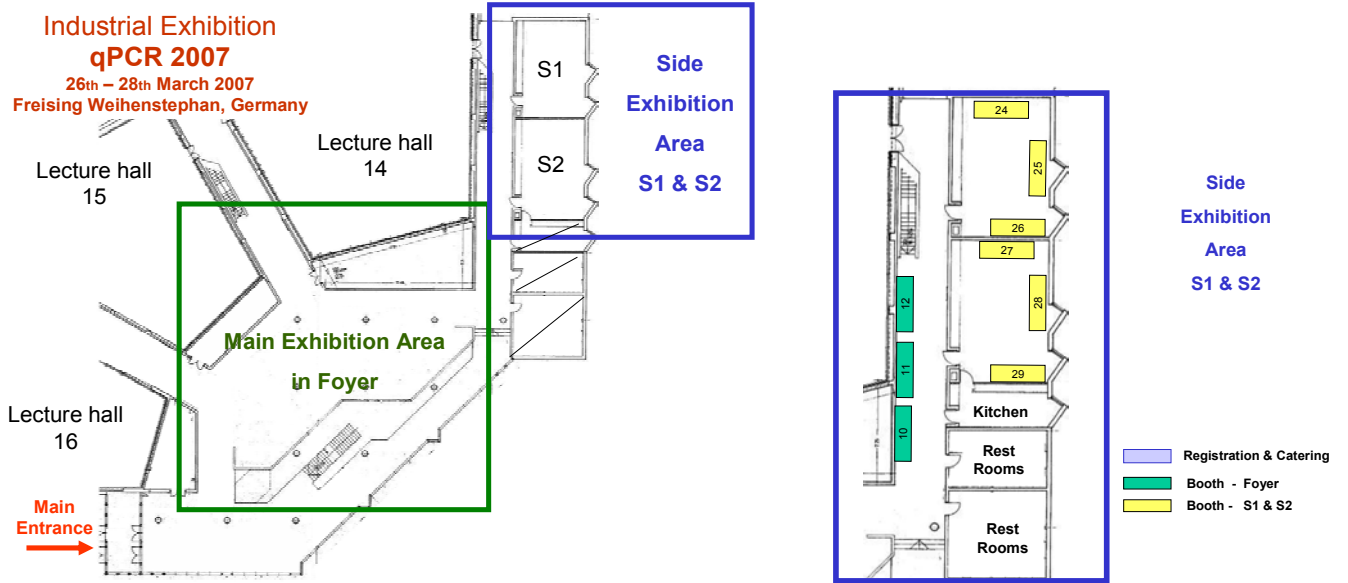


The workshop will provide you with detailed information about the use of Plexor with different qPCR cyclers, the primer design, the reaction setup and the data analysis. You will setup a qPCR run including data analysis (Ct and melt curve) for a multiplex qPCR reaction, followed by a discussion about the setup, results etc. with Promega Scientists.

Learn more about the workshop at <http://www.promega.com/de/Seminare/Workshop.htm>

Industrial Exhibition

An industrial exhibition will be held during the qPCR Symposium March 26 – 28 in the foyer of the central lecture hall complex (green frame) and in two side rooms S1 and S2 (blue frame). More than **35 companies** participate at the qPCR Event Exhibition from 26th – 28th March 2007.



qPCR 2007

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Real-Time Solutions



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LABORWELT



www.gene-quantification.info



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BioScience Events